Amendm nts to the Claims

1. (Original) A deposition system comprising:

a deposition chamber having an inlet port;

a first reservoir configured for containment of a first metastable specie, the first reservoir comprising an outlet port in selective fluid communication with the inlet port of the deposition chamber; and

a metastable-specie generating catalyst within the first reservoir.

2. (Original) The deposition system of claim 1 wherein the catalyst comprises Pt.

3. (Original) The deposition system of claim 1 wherein the catalyst comprises Zn.

4. (Original) The deposition system of claim 1 further comprising a heat source configured to heat the catalyst.

5. (Original) The deposition system of claim 1 further comprising a carrier gas source in selective fluid communication with the deposition chamber through the inlet port.

6. (Original) The deposition system of claim 1 further comprising:

a substrate platform; and

a dispersion head between the inlet port and the substrate platform.

7. (Original) The deposition system of claim 1 further comprising:

a second reservoir configured for containment of a second metastable specie, the second reservoir comprising a second reservoir outlet port in selective fluid communication with the deposition chamber.

8. (Original) The deposition system of claim 7 wherein the inlet port of the deposition chamber is a first inlet port, the deposition chamber further comprising a second inlet port, wherein the outlet port of the second reservoir is in selective fluid communication with the deposition chamber through the second inlet port.

9. (Original) The deposition system of claim 7 wherein the metastable-specie generating catalyst is a first metastable-specie generating catalyst, and further comprising a second metastable-specie generating catalyst within the second reservoir.

10. (Original) The deposition system of claim 7 further comprising a carrier gas source in selective fluid communication with the deposition chamber through the second inlet port.

11. (Original) The deposition system of claim 7 further comprising:

a remote metastable specie source, wherein the second reservoir comprises an inlet port in fluid communication with the remote metastable specie source.

12. (Currently amended) The deposition system of claim 11 wherein the remote metastable specie source comprises a metastable specie generator comprising one or more of a plasma ~~sorce~~ source, a catalyst, a heater, an electron gun, a UV light source and a microwave source.

13. (Original) A deposition apparatus comprising:

a deposition chamber having a first volume;

at least one containment reservoir fluidly connected to the deposition chamber and having a second volume, the second volume at least about 1% of the first volume;

a remote metastable specie source in fluid communication with at least one of the containment reservoirs.

14. (Original) The apparatus of claim 13 wherein the second volume is greater than or equal to about 10 % of the first volume.

15. (Original) The apparatus of claim 13 wherein the second volume is greater than or equal to about 50 % of the first volume.

16. (Original) The apparatus of claim 13 wherein the second volume is equal to or greater than the first volume.

17. (Original) An atomic layer deposition apparatus comprising:

a deposition chamber having a first inlet, a second inlet, a dispersion head, and a substrate platform; the dispersion head being positioned between the first inlet and the substrate platform and between the second inlet and the substrate platform;

a first activated specie containment reservoir in fluid communication with the deposition chamber through the first inlet;

a second activated specie containment reservoir in fluid communication with the deposition chamber through the second inlet; and

one or more carrier gas sources configured to deliver carrier gas through at least one of the first inlet and the second inlet.

Claims 18-48 (Cancelled).